APPENDIX

APPENDIX A

OPINION BELOW

IN THE UNITED STATES COURT OF APPEALS
FOR THE FIFTH CIRCUIT

No. 25255

MICR-SHIELD COMPANY, ET AL., *Appellant,*

versus

THE FIRST NATIONAL BANK OF MIAMI, *Appellee.*

Appeal from the United States District Court for the Southern District of Florida

(November 13, 1968)

Before TUTTLE and GOLDBERG, Circuit Judges and HOOPER, District Judge.

TUTTLE, Circuit Judge: After a careful consideration of the record and exhibits, the briefs, reply briefs and supplemental briefs, requested by the court following oral argument, we conclude that the judgment in this action for patent infringement must be affirmed.

The action was for an alleged infringement of the Buros patent, USLP No. 3,112,151, issued November 26, 1963, to appellant, Melvin S. Buros. The patent related to a method of MAGNETIC INK CHARACTER RECOGNITION - "MICR" - ERROR CORRECTION, and was intended by the inventor to meet a problem involved with modern electronic banking. The patentee charged the First National Bank of Miami with infringement of the patent. Appellee denied infringement, and alleged that the Buros patent was invalid and also raised the affirmative defenses of (a) prior art, (b) anticipation, and (c) ob-

viousness under the respectively pertinent sections of the patent statute.[1]

The trial court rendered judgment for the appellee, and the appellant here appeals from this judgment.

As stated above, the problem here involved is with banking. Most banks handle large volumes of checks and deposits by automatic data processing equipment. The standard system is the MICR system. At the bottom of a typical bank check there is a "clear band" strip reserved for magnetic symbols called MICR characters. Each check has on this band MICR characters identifying the bank and customer's account number, and, after cashing the check, a bank employee encodes another group of MICR characters, showing the amount of the check on the clear band. Of course, this is the figure entered by the drawer of the check by hand. After this encoding, a sorter-reader machine physically sorts out the checks by account number and "reads" the information from MICR characters in the clear band, passing this data electronically to a computer, which performs the bookkeeping.

All these operations are by machine except that human operators encode the amount-encoding step, and they do make errors. The problem is error correction — this in-

[1] "(a) 35 USCA 102(a): A person shall be entitled to a patent unless (a) the invention was known or used by others in this country . . . before the invention thereof by the applicant for patent or (b) 35 USCA 102(g): before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed or concealed it . . . . (c) 35 USCA 103: a patent may not be obtained though the invention is not identically disclosed as set forth in Section 102 of this Title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention is made."

volves time requirements, audit trails and legal requirements, machine requirements, in that the machine must see the corrected and not erroneous encoding, and must not reject the corrected check. The problem was to find an error-correcting technique which (a) could be performed quickly, to avoid slowing down handling of large numbers of documents; (b) erase the error to avoid reading error into computer; (c) which would not erase error optically, to avoid breaking audit trail; (d) would not affect the other non-magnetic ink on the check, to avoid damaging water marks and legal features of the check such as signature; (e) and would not mutilate the check or affect its width or thickness, to avoid jamming the sorter-reader machine.

Prior techniques attempted to mask the error mechanically or to mutilate the check so that it would be rejected by the sorter-reader after which the check would be handled manually. Among these techniques were: (a) the extended clear band strip; (b) adhesive sticker; (c) carrier envelope; (d) substitute document; (e) document reject methods; (f) abrasive erasers; (g) ink eradicator. These techniques were unsatisfactory, especially from the standpoint of making a proper audit trail and violated one or more of the necessary goals and qualities discussed above.

The problem was being looked into by a sub-committee of the Business Equipment Mfgs. Association, composed of official representatives of each of the manufacturers of data processing equipment used by banks. There were efforts directed toward finding a common technique for the data processing banking industry and they were reviewing the various error correction techniques. The results of their meetings in February of 1962 were that a recommended procedure was not available because they could find "no obvious solution" to the problem. At this time, appellant Melvin Buros, primarily an architect, engineer

and building contractor, experienced in building banks, had presented as a solution a sticker device known as MICR-Shield, which was to be reviewed. Upon failure of this device, Buros had been working on and had arrived at another technique of error correction. After failing to devise a change in the magnetic iron properties in MICR encoding to non-magnetic, and after failing with his laminated foil paper sticker, Buros "invented" his process involved in this suit, applied for a patent and publicized his discovery to the BEMA committee and the banking industry.

The basis of the Buros method is a process in which a solvent is applied to the MICR area which will soften or dissolve the binder component of the magnetic ink, loosening the magnetic iron particles. The loosened magnetic particles are then spread around on the face of the check in the area of the encoding or are absorbed into the solvent applicator, so that the particles no longer form a coherent MICR character, electronically recognizable as a character by the sorter-reader machine. Then the correct MICR characters are encoded on the check in the area previously occupied by erroneous encoding and the document is handled normally and automatically in the bank's data processing equipment.

This method supposedly has none of the disadvantages of the others in that the original error remains optically visible for the audit trail; the method is quick; non-magnetic printing and signatures are not affected, thickness and width are not affected.

The method was rapidly and widely accepted by the industry and was used by appellee. Appellee later switched to a DOW chemical commercial solvent called "Chlorothene Nu" which was less expensive but which was basically the same if not identical to the Buros solvent "Trichlorothene," and appellant sued for infringement of his patent.

The trial court found as facts that the appellants' patent was for a process consisting of the removal and distribution of erroneously encoded magnetic ink characters on checks or other documents by application of a solvent for magnetic ink, permitting reinscription on the document. The trial court found that several patents and rights antedating that of appellant taught the technique of removal of ink and print by application of a solvent and other patents named solvents for magnetic ink and some of these same solvents were recommended in appellant's patent. The court found that the solvent approach was obvious, pointing out that the banker who called the attention of appellant to the problem had advised appellant that he himself had attempted to remove magnetic ink by application of ink eradicator. The trial court found that the selective solvents for magnetic ink were well known prior to the date of appellants' discovery of the process. It further found that well over a year prior to the discovery by appellant of the fact that magnetic ink could be wiped off documents with aid of a solvent for magnetic ink, IBM corporation had thoroughly explored the process and had anticipated all of the material discoveries of the appellants, including the fact that solvents for magnetic ink had little effect on other ink or on safety features on checks and that not all magnetic ink had to be removed prior to re-encoding of the check. The trial court found no evidence that IBM Corporation suppressed, concealed or abandoned the invention.

The court further found that the process had been demonstrated by the IBM corporation to a number of personnel of the Republic National Bank of Dallas, Texas, in early 1961 and that the bank used the solvent process in its operations for a number of months and that such use was not experimental but was a public use of substantially the identical process described in the patent. The trial court found that use by the First New Haven National Bank of Burroughs Platen Restorer to remove magnetic ink antici-

pated the process of the Buros method prior to its discovery and that the bank independently used the solvent technique as an obvious approach to the problem. The trial court also found that engineers of the Burroughs Company in Miami, Florida, and San Jose, California, used solvents to remove magnetic ink from checks prior to appellant's discovery of the process.

Thus, the court concluded that the process was not "new" within the requirements of 35 U.S.C.A. 101, and therefore was not patentable. Lack of novelty was established by anticipation by IBM, Republic National Bank and First New Haven and under Section 102(g) the patent failed because of IBM's prior discovery and non-concealment or abandonment; that the subject process was known and used by others in this country before the discovery of the process by appellant under 102(a) and the process was in public use in the country more than one year prior to the date of appellant's application for patent. The trial court further found that the differences between the Buros method and prior art were such that the subject matter as a whole would have been obvious at the time the process was discovered by appellant to a person having ordinary skill in the art to which the subject matter pertained, under Section 103.

The Steigleder patent cited in the patent examiner's report disclosed a method of eradicating inked data by use of a solvent. Appellant seems to maintain that all ink eradicators are a one-step bleaching operation, but the record reveals and the Steigleder patent reveals that eradicators can be a two-step process of application with a solvent the first step, with the solvent attacking the binder of the ink, freeing the qualities to be then absorbed by a blotter, as the second step. The Billings patent, cited in the patent examiner's report, showed the method of erasing by combined friction and a solvent and reuse of the area for a newly printed character. The Ladeuz pat-

ent, cited in the patent examiner's report, disclosed erasure by a partially alcohol solvent combined with abrasion, though alcohol is not a recommended solvent by appellants' patent. The Kulesza patent cited in the examiner's report disclosed the erasure of magnetic ink and taught that the magnetic ink was comprised of iron granules coated with waxes and resin, forming a thermo plastic binder, which could be dissolved by toluene, a solvent recommended by appellants. The Newman patent, not cited in the patent examiner's report, names solvents for magnetic ink. The finding of the trial court that these patents taught removal of ink and print, including magnetic ink, by solvents and that selective solvents for magnetic ink were well known prior to the date of appellants' discovery of the process, is fully supported.

There can be no real dispute between the parties as to the applicable law which controls our decision. For the most recent statement of these principles in this circuit, see *Metal Arts Co.* v. *Fuller Co.* (5 Cir., 1968), 389 F. 2d 319. As pointed out there, while patent validity is a question of law, it is to be "decided on the basis of factual inquiries." *Graham* v. *John Deere Co.*, (1966), 383 U.S. 1. In Graham, as we pointed out in the Metal Arts Company case, supra, "the court noted several preliminary factual inquiries which are pertinent in determining validity in the face of the defense based on obviousness, but the principle is equally applicable to a defense involving lack of novelty. Two of these are the scope and content of the prior art and the difference between the prior art and the claims in issue. The conclusionary inquiry then is to determine the question of novelty *vel non* on the basis of the preliminary findings. The clearly erroneous rule applies in such cases. Hughes Tool Co. v. Varel Mfg. Co. (5 Cir., 1964) 336 F. 2d 61."

It is also pointed out in the Metal Arts case that a finding of prior public use as a defense must be based on evi-

dence that is "clear, satisfactory, and by some it is said beyond a reasonable doubt. . . ." citing *Southern Implement Company* v. *McLemore* (5 Cir., 1965) 350 F. 2d 244.

Here, appellant maintains that the district court had a fundamental misunderstanding of the prior art problem which appellant sought to solve — that it was a data processing problem and not a mere chemical problem of finding a solvent for magnetic ink, and that, therefore, the district court should have directed its attention to whether in view of the data processing requirements it was "obvious" that a solvent method would solve the problem. In light of what the Supreme Court has said in the Cook Chemical cases, *Calmar, Inc.* v. *Cook Chemical Co.*, and *Colgate Palmolive Co.* v. *Cook Chemical Co.*, decided by the Supreme Court in the same opinion as the Graham case, supra, 383 U.S. 1 at page 26, we think the "pertinent art" is broader than that relating to "data processing," and the "banking and data processing" industry. Rather it relates to the subject of erasure of ink, specifically magnetic ink. In the Cook case the Supreme Court said:

> "The problems confronting Scoggin and the insecticide industry were not insecticide problems; they were mechanical closure problems. Closure devices in such a closely related art as pouring spouts for liquid containers are at the very least pertinent references. See 2 Walker on Patents, Sec. 260 (Dela. ed. 1937)." 383 U.S. 1 at p. 35.

Thus, in order to determine whether the invention lacked novelty or was obvious, the existence of either of which fact would invalidate the patent, the trial court properly considered the prior art as disclosed by the patents discussed above. Particularly damaging to appellants' claim of non-obviousness is the definition of appellants' expert witness, the chemist Beuhrar. This research chemist testified that it was a simple chemical problem to ascertain which solvents would work on magnetic ink, in loosening the binding of paraffin and wax, and that the idea of such

a process by which organic solvents would dissolve the binder and spread the iron particles was well known for a long time and was very plain and obvious. He also testified that it was also obvious that the applicator would absorb some of the ink and iron particles. The problem, according to Beuhrar was merely one of knowing the chemistry of the solvent and the chemistry of the ink. The trial court also rightly cited as an indication of obviousness, the fact that the banker who asked appellant to find a solution had himself experimented with ink eradicator and recognized the problem as one of erasing and encoding magnetic ink.

The record shows that the IBM Corporation conducted lengthy and thorough testing of erasure by the solvent process and gave it good recommendations. The only difference between IBM and appellants' method is that IBM had trouble retaining an optically visible error while re-encoding its magnetic electronic visible MICR characters. This appears to have been because of the mistaken idea of the IBM operators that all trace of the magnetic particles must be removed to enable a proper re-encoding. The record also shows that IBM presented the solvent process to its customers at the Republic National Bank, as one of many approaches, in the spring of 1961, well prior to appellants' discovery, and that bank attempted a solvent process. The record is replete with testimony that many persons and many banks tried every conceivable solvent, even lighter fluid and nail polish, all recognizing the problem as one of a solvent erasing process, all well before appellants' discovery. This record supports the trial court's finding of the obvious nature of the discovery.

It must be kept in mind that appellant did not patent a particular solvent, but rather a process of using solvents. The evidence shows that such a process was a natural conclusion of many persons involved in data processing, and in ink eradication, and that such a process was wide-

spread in many faceted and long term use. It may be granted that appellant's recommendations of solvents were the best of the lot, though it is also apparent from the record that some of them were actually used by others prior to his invention. The mere production of the best of the lot, of course, does not overcome the standards of obviousness, prior use, or anticipation.

We conclude that the defenses as proved in the trial court were adequately established by the required standard of proof, and the judgment must be

AFFIRMED.

APPENDIX B

1. Judgment Below

[Caption omitted]

Before TUTTLE and GOLDBERG, Circuit Judges, and HOOPER, District Judge.

JUDGMENT

This cause came on to be heard on the transcript of the record from the United States District Court for the Southern District of Florida, and was argued by counsel;

ON CONSIDERATION WHEREOF, It is now here ordered and adjudged by this Court that the judgment of the said District Court in this cause be, and the same is hereby, affirmed;

It is further ordered and adjudged that the appellants, Micr-Shield Company, and others, be condemned, in solido, to pay the costs of this cause in this Court for which execution may be issued out of the said District Court.

November 13, 1968

2. Order Denying Rehearing

[Caption omitted]

(January 10, 1969)

ON PETITION FOR REHEARING

Before TUTTLE and GOLDBERG, Circuit Judges, and HOOPER, District Judge.

PER CURIAM:

It is ORDERED that the petition for rehearing filed in the above styled and numbered cause be, and the same is, hereby DENIED.

APPENDIX C

STATUTES AND RULE INVOLVED

1. Section 101 of Title 35, U.S.C., provides as follows:

"§ 101. Inventions patentable

"Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title."

2. Section 102 of Title 35, U.S.C., provides in pertinent part as follows:

"§ 102. Conditions for Patentability: novelty and loss of right to patent

"A person shall be entitled to a patent unless—

"(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent, or

"(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of the application for patent in the United States, or

* * * * *

"(g) before the applicant's invention thereof the invention was made in this country by another who had not abandoned, suppressed, or concealed it. In determining priority of invention there shall be considered not only the respective dates of conception and reduction to practice of the invention, but also the reasonable diligence of one who was first to conceive and last to reduce to practice, from a time prior to conception by the other."

3. Section 103 of Title 35, U.S.C., provides as follows:

"§ 103. Conditions for patentability; non-obvious subject matter

"A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made."

4. Section 282 of Title 35, U.S.C., as amended by Pub. L. 89-83 of July 24, 1965, provides in pertinent part as follows:

"§ 282. Presumption of validity; defenses

"A patent shall be presumed valid. Each claim of a patent (whether in independent or dependent form) shall be presumed valid independently of the validity of other claims; dependent claims shall be presumed valid even though dependent upon an invalid claim. The burden of establishing invalidity of a patent or any claim thereof shall rest on the party asserting it.*

"The following shall be defenses in any action involving the validity or infringement of a patent and shall be pleaded:

"(1) Noninfringement, absence of liability for infringement or unenforceability,

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* Prior to its amendment by Section 10 of the Act of July 24, 1965, Pub. L. 89-83, 79 Stat. 259, 261, this paragraph read:

"A patent shall be presumed valid. The burden of establishing invalidity of a patent shall rest on a party asserting it."

"(2) Invalidity of the patent or any claim in suit on any ground specified in part II of this title as a condition for patentability,

"(3) Invalidity of the patent or any claim in suit for failure to comply with any requirement of sections 112 or 251 of this title,

"(4) Any other fact or act made a defense by this title. * * *"

5. The pertinent portion of Rule 52(a) of the Federal Rules of Civil Procedure, which in this respect was not amended in 1963, provides:

"Findings of fact shall not be set aside unless clearly erroneous, and due regard shall be given to the opportunity of the trial court to judge of the credibility of the witnesses."